

Famer; that had to be worth more money. Webster was in no mood to celebrate, not that he ever was. He had come to view the Hall as a sick ward inhabited by former players discarded by the league, their bodies and minds left to wither and rot, just as his were. He approached the event with two main objectives: dispel the rumors that his life was a train wreck and persuade several other Steelers Hall of Famers to join him in a new business venture. They would market themselves collectively: merchandise, signings, personal appearances.

"This was gonna be his big weekend: 'Hey, I'm not a loser. I'm not a homeless guy living under an overpass like everyone says and addicted to pain medicine,'" said his son Colin. "That and 'Here I am. Look, I made it.' It was gonna be his weekend and the start of a new era."

But none of his former teammates would sign on to his business plan. Some wanted to help, but no one was going to go into business anytime soon with Webby, not in his current state. Webster asked Bob Stage, the pilot, if he would introduce him before his acceptance speech. Stage was touched, but he thought the choice was a reflection on how sick Webster was. "Mike, I'm honored, but you need somebody who had an impact in your career, not Joe Blow," he said. Webster asked Stage if he thought Bradshaw would do it. Of course he would, said Stage.

In fact, Bradshaw did more than that. During the weekend, the retired Steelers quarterback pulled Webster aside and handed him a check for \$175,000. Webster tore it up. "Nooooo!" Sunny cried. "Mike, we need it!" Webster's pride in such matters was as erratic and malleable as his mental state. One minute he was living in the Pittsburgh Hilton on the Rooneys' dime, and the next he was ripping up a \$175,000 check from his quarterback of over a decade. As the years went on, Webster repeatedly rebuffed offers from his friends and former teammates, eventually alienating many of them. He developed an irrational loathing of the Steelers, blaming the team for a variety of his ills.

The ceremony on July 26, 1997, was delayed by rain; it was sticky and humid, with temperatures reaching the eighties. Webster was the last to be inducted into a class that included Raiders defensive back Mike Haynes, New York Giants owner Wellington Mara, and Dolphins

coach Don Shula, who, tanned and youthful, looked like he had just arrived from the Bahamas, especially compared with Webster, sitting next to him, who was pale and disheveled.

Webster fidgeted through the ceremony, adjusting his gold Hall of Fame blazer and tie, which he wore over a dark blue golf shirt, its collar half up and half down. The inductees sat in a row behind the podium. At one point, in the middle of Mara's speech, Webster got up and left, returning after a few minutes. When Bradshaw finally took the podium to a loud ovation, his introduction was more of a sermon than a speech. Bradshaw rarely had set foot in Pittsburgh after his career ended, apparently because of his resentment over the abuse he endured early in his career. But for 10 minutes—longer than even the inductees were supposed to speak—Bradshaw talked largely about himself, a homespun tale of his dream to play football and how God had not only granted him that dream but allowed him to share it with some of the greatest players ever—Swann, Stallworth, Harris, Bleier, Greene, Lambert, Ham, Kolb, Holmes.

Finally, Bradshaw reached the powerful climax:

"But what good is a machine if you ain't got a center? And oh, did I get a center! I didn't just get any ol' center, no sirree. I got the best that's ever played the game, the best that ever put his hand down on a football. I loved him from the first time I ever put my hands under his butt."

As Bradshaw continued, Webster, aware that he was about to speak, removed his tie.

"There has never been or there never will be another man as committed, totally dedicated to making him the very best that he could possibly be," Bradshaw continued. "There's never been a man who was so loved. He was the background on which we were built around. He was our spine. There never has been, never will be, another Mike Webster!"

At Bradshaw's own induction in 1989, he had yelled, "What I wouldn't give right now to put my hands under Mike Webster's butt just one more time!" And so as he completed his introduction, Bradshaw reached into a paper bag, pulled out a football, and shouted, "One more time!" Webster rose, with the Steeler faithful delirious, took off his blazer, and limped over to Bradshaw. He grabbed the ball, somehow

managed to hunch down as low as he ever did when he was playing, and snapped a bullet to Bradshaw.

The two men hugged, Webster approached the podium—and Team Webster held its breath.

By this point in Webster's life, Ritalin was one of his best friends, a drug he came to depend on to get him through the day. He used it to focus and take the edge off his spiraling depression. A psychostimulant, Ritalin had grown popular for treating children with attention deficit disorder. Though it sparked the release of dopamine in the brain—the chemical most associated with pleasure and reward—the drug had the effect of honing an ADD patient's concentration. Some doctors saw its potential with Parkinson's patients and with adults who had experienced brain trauma. It was clear to Webster that Ritalin worked for him. Before taking the podium in Canton he gulped down 80 mg.

Even then, his rambling speech lasted 21 minutes—13 more than his allotted time. Speaking without notes, Webster was conversational, occasionally inspiring, and funny. But he was also all over the place. He opened with a slightly awkward joke: "Giving Bradshaw a forum and a microphone is like giving Visine to a Peeping Tom." He added another later: "His dad says he was so ugly, his mom carried him around for two weeks upside down, thought he only had one eye." Webster left the stage briefly to hug Pam, the kids, and other family members. He bounced in and out of messages about failure and success, briefly quoted Longfellow, and lost his train of thought several times.

Sometimes it appeared as if he were giving a talk to a group of middle-school students:

"Don't give up, don't be afraid to fail. No one is keeping score. All we have to do is finish the game, and we'll all be winners."

Other times he sounded like a man trying to save his country, though it was unclear what he was trying to save it from:

"I'm talking about things that are going on today that have been ignored for a long period of time. And yeah, we're addressing them now because we have a history of only addressing them only when they jump up and bite us in the ass. And not until we do that. But we can change that. We can change, but we're in this, we gotta care about one another, we gotta care about our kids, we gotta care about a lot of things. And

we do care about a lot of things, but we gotta have enough people caring and working together. And we can get that done, it's not impossible. Hell, nothing else is working. You know, maybe it's idealistic, but nothing else is working, folks. And I'm just appreciative that I had the opportunity to play with these men both in Pittsburgh and Kansas City, and against the jerks on the other teams."

As he watched Webster struggle, Bob Stage cringed. The Steelers' pilot had enjoyed Webster's company for years and considered him one of the most decent men he had ever known. The man he was now watching was being honored for his greatness on the football field, which was fitting, but it was no longer Mike Webster.

"It made no sense," Stage said. "It broke my heart."

Perhaps most notable in Webster's speech was who he didn't thank—and who didn't attend. There was no mention of Steelers owner Dan Rooney or Joe Gordon or anyone else from the team's front office except for the beloved and deceased Steelers patriarch, Art Rooney Sr. No one from the organization attended. Dan Rooney said he was in Dublin preparing for the team's American Bowl preseason game the next day against the Bears. "I expected more," Pam told the *Post-Gazette*. "It's a shame. They could have sent someone or sent a telegram. It would have been the classy thing to do."

By this time, Webster's festering enmity toward his former team was obvious to those closest to him, though its origins were never clear. Part of it was Webster's belief that the Steelers had never offered him a coaching job at the end of his career, although Dan Rooney later said they had. Part of it certainly was his growing paranoia and, with that, his lasting belief that Rooney had somehow betrayed him. Why he came to hate Joe Gordon, no one really could say. Just a year earlier, Gordon and Rooney had rescued Webster from the Pittsburgh Greyhound station. But hate was what it was, and as Webster got sicker, that hate consumed him.

There was, however, one moment of astonishing lucidity in Mike Webster's Hall of Fame speech, a moment that seemed to capture the essence of the sport that had broken him. "You know, it's painful to play football, obviously," he told the crowd. "It's not fun out there being in two-a-day drills in the heat of the summer and banging heads. It's not a natural thing."

Seated behind Webster was the NFL commissioner, Paul Tagliabue. This remark, as truthful as any that Webster would utter that day, seemed to provoke in Tagliabue neither awareness nor reflection as he sat next to Bradshaw watching an NFL legend unravel. Instead, the commissioner and Bradshaw seemed to be laughing at something.

FUCK YOU, JERRY MAGUIRE

In March 1996, about a year and a half after Merrill Hoge announced his retirement, some of the nation's leading experts in sports medicine gathered during a spring snowstorm at Allegheny General Hospital in Pittsburgh. By the standards of some medical conferences, it wasn't a huge gathering: about 200 brain specialists, team doctors, and trainers, mostly from across the Northeast. The conference was billed as "the first cross-disciplinary attempt to confront the many difficult issues regarding evaluation and treatment of sports-related concussion." Maroon, who cohosted, used his Steelers connections to put together an "experts roundtable" of doctors and retired players, including Hoge, New York Giants linebacker Harry Carson, Steelers quarterback Mike Tomczak, and Buffalo Bills safety Mark Kelso. The moderator was former Steelers great Lynn Swann, whom Maroon introduced as "a master chef, poet, and good friend."

What followed was an eye-opening dialogue about the realities facing the NFL when it came to brain injuries. The players told the audience of doctors that they had spent their entire careers essentially ignoring them, playing through pain and injury out of fear of letting down their teammates and losing their jobs. During one exchange, Swann asked Carson, a future Hall of Famer and one of the best linebackers of his generation, a leading question: Do players feel their "livelihood" is threatened when they come off the field?

"Very much so," said Carson. "Football players are very insecure people. Players are interchangeable parts. Someone played your position before you, and when you leave, someone else is going to be in your place. You are only there for a short time, so you want to make as much as you can in the time given you. You do not want to give anyone else a shot at your job. Football players understand that if they give someone the opportunity to do the job better, their days are numbered."

Perhaps the most startling admission came from Tony Yates, the Steelers' team doctor, who said he was essentially powerless to bench a highly motivated player. He cited as an example Greg Lloyd, a Steelers linebacker who once said, "I know I haven't played a good game unless my hand has been stepped on or if somebody somewhere isn't bleeding." Yates told his fellow doctors, each of whom had taken the Hippocratic oath ("Do no harm"), that the ultimate authority for getting Greg Lloyd off the field was not him, the doctor, but the head coach. "Many times it is just physically impossible," Yates said. "Only a head coach can pull a player off. When we finally reach the head coach and impress upon him the seriousness of an injury, the players come off."

Sitting in the audience, mesmerized, was a Michigan State graduate student named Michael (Micky) Collins. He had made the five-hour drive down from East Lansing with his faculty adviser, mostly out of curiosity. Collins felt like he was at a personal crossroads. A former pitcher and outfielder at the University of Southern Maine, he was in his second year studying for a master's degree in clinical psychology. But Collins had no idea what he wanted to do with his life. He missed sports and had thought about coaching or perhaps a career as an athletic trainer. He had traveled to Pittsburgh at the suggestion of his adviser, who thought the combination of sports and brain research might stir Collins's interest.

Collins was attentive to what the players had to say, but for him the real stars were the doctors and the scientists. He watched as Joe Maroon and Mark Lovell presented their latest findings on concussions. "These are the coolest guys in the world," Collins thought. During the drive back to East Lansing, he told his adviser: "This is what I want to do with my life."

At this point in the looming concussion crisis, Merrill Hoge was no

longer a professional football player; he was a case study and a cautionary tale. During the conference, Lovell had presented slides showing how Hoge's brain function had fallen off a cliff after the hit in Chicago. Lovell's concussion test already was becoming known in neuropsych circles as the Pittsburgh Steelers Test Battery, although the Steelers didn't own it and the test was not yet the marketing juggernaut it would come to be. Collins was fascinated. After watching Lovell's presentation, he approached him and asked if he could use the Steelers Battery as the basis for his own research into football-related concussions. Lovell readily agreed. Thus began the steep upward trajectory that within five years would turn Collins into one of the leading concussion experts in the country and a member of a partnership with Maroon and Lovell that would shape the NFL concussion saga in huge and controversial ways.

Collins was nothing if not enterprising. He first used the Steelers Battery on the Michigan State football team, having secured permission through a trainer. Collins baselined a Spartan a day for months, all the while thinking to himself, No way this is gonna work. Then one day a lineman named Chris Smith came off the field with a concussion. Collins tested him the next day. "He looked normal, he talked normal, he acted normal, and he went right back to play," said Collins. There was one problem: The test indicated that Smith was a walking zombie; he shouldn't have been playing at all. "I was thinking to myself, 'Wow! This really works,'" said Collins. At that point, he was in no position to influence whether Chris Smith played or sat out, but he was emboldened. He secured a small grant to study other colleges. He traveled to the universities of Utah and Pitt and then got an internship to study the University of Florida football team.

When he was done, Collins wrote up his findings. He submitted the paper not to some minor publication for young researchers but to the *Journal of the American Medical Association*, or *JAMA*, the most widely circulated medical journal in the world. "What the hell, it's a sexy topic, isn't it?" he thought. Collins titled his sexy paper "Relationship between Concussion and Neuropsychological Performance in College Football Players." He cold-called a *JAMA* editor, who agreed to take a look. The fact that the paper was accepted, he later acknowledged,

was a tribute less to its quality ("It's probably the worst paper I've ever published") than to the sudden appetite for a subject that researchers had ignored for years but that now seemed critically important, an issue whose time had come, like the dangers of nicotine or cholesterol. The paper's major findings, published in 1999, were that neuropsychological testing was an effective tool to assess concussions in athletes and that those with a history of multiple concussions or learning disabilities were far more likely to fail those tests.

"Quite honestly, and not to sit here and blow, but this paper was seminal," said Collins. He seemed dismissive of the earlier work of researchers such as Jeff Barth, who had reached similar conclusions but had published his research as a chapter in a book called *Mild Head Injury*. Years later, that book was still available on Amazon, delivered to your doorstep within days, but Collins would say: "The other article published on this stuff was published in some obscure journal, and there was very little. You had to dig deep to find it." Collins's own article, in contrast, was big-time: "This was *JAMA*!"

Collins had short blond hair, an angular head that squared off at its crown, and the wiry physique of a distance runner. He was tightly wound and argumentative and sometimes came off as being about as charitable with his peers as he was with Barth. Collins had particular contempt for neurologists, for example, believing that most of them failed to grasp the intricacies of his particular specialty: "There are some incredible neurologists, but ninety percent of them have no clue how to manage a concussion, ninety-five percent of them," he said. When explaining his work and the science of concussions, he had a habit of punctuating his sentences with a quick check to make sure his listeners were able to keep up: "You following me? Does that make sense?" He was the opposite of his mentor, Lovell, who projected a kind of sleepy calm. But when Lovell went to work at the new sports medicine center that had been established at the University of Pittsburgh Medical Center, joining Maroon at UPMC, he brought Collins with him.

Collins worshiped Lovell. "Mark Lovell is probably the smartest human being I've ever met in my life," he said. "He has vision. He's a tinkerer. He's the mad scientist in the room. Smoke comes out from under the door. I'm the guy that sees all the patients and runs around."

After decades of neglect, concussions were taking off as a research subject that merited serious attention. As Collins had correctly pointed out, examining the brains encased in football helmets adorned with the team logos to which millions of Americans had sworn allegiance was suddenly a sexy topic. There was money to be had and, equally important, prestige. There were headlines and careers to be made. The researchers who got in early—Jeff Barth, Joe Maroon, Mark Lovell, and a few others—soon begat other researchers, and they too began to make discoveries, many of which would prove highly problematic for one of the nation's leading concussion factories: the National Football League.

Julian Bailes was a rising star when Maroon recruited him out of Northwestern University in Chicago to join him on the neurosurgical staff at Allegheny General Hospital in 1988. The two men could hardly have been more different in background and temperament. Maroon had grown up in Bridgeport, Ohio, a striver in the blue-collar image of his hustling father. Bailes was the son of a Louisiana Supreme Court justice. He had spent much of his early life in New Orleans and other parts of Louisiana and exuded the easy charm of a southern patrician, a stout handsome man with a slight drawl and thick dark hair that he swept back from his forehead.

Bailes had been ambivalent about beginning his career in sleepy Pittsburgh. But Maroon possessed one particularly attractive chit: In addition to performing brain surgery, Bailes could join him working the sidelines with the Pittsburgh Steelers, learning from the man who had watched over the brains of Terry Bradshaw and Jack Lambert. Bailes had been an all-state linebacker in high school and had gone on to play at Northwestern State University, a small Division I school in Natchitoches, Louisiana. He still lived and died for football. "I said, 'Shit, that sounds like as good a reason as any to move to Pittsburgh,'" Bailes recalled. "I'm in." He quickly adapted to his surroundings. "You know, there was no greater feeling than being a single neurosurgeon in Pittsburgh and going to the Porsche dealership and writing a check for \$120,000 and driving this Porsche out and not even caring," he said. "I went through about five of them."

In the mid-1990s, around the same time Maroon and Lovell were

developing the Steelers Battery, Bailes was introduced to Frank Woschitz, a longtime official with the NFL Players Association. Woschitz had just conducted a health survey on retired players that he hoped would persuade the union and the league to give the players lifetime health insurance. It was a huge problem: Players often left the game so battered that they were unable to qualify for health insurance. But the league refused to provide it.

Bailes had agreed to look at the data for Woschitz—hundreds of questionnaires stacked in cardboard boxes—expecting that it would focus on mundane issues such as arthritis, back injuries, and heart disease. But when Bailes took a closer look, he was stunned. “Yes, they had hyperlipidemia [high cholesterol] and joint pain and cardiac disease, as expected,” he said. “But they were also having all kinds of cognitive problems. It was way out of line for what you would expect.”

Bailes shared this curious piece of information with a New York neurologist named Barry Jordan. In neuroscience circles, Jordan was already something of a legend. While attending Harvard Medical School in the late 1960s, Jordan, one of the few African Americans in his class, had decided to make up his own concentration: sports neurology. “All my classmates laughed at me,” he said. By the time he connected with Bailes, Jordan was one of the preeminent experts in sports medicine in the country and the chief medical officer of the New York State Athletic Commission.

Jordan agreed that the survey findings were off the charts. He wasn’t entirely surprised. Jordan had done a lot of research into boxing, in which the issue of chronic brain damage had been known since the 1920s, and had been expecting to see it show up in other contact sports. As early as 1999, he wrote that chronic brain damage “has been described primarily in boxers, but it may be anticipated in other sports such as American football, ice hockey and perhaps soccer.”

Now, if Frank Woschitz’s survey was correct, retired football players were showing dramatically elevated signs of incipient dementia in huge numbers. Bailes and Jordan followed up with a survey of their own. To avoid tipping off the players that they were specifically looking at brain damage, Bailes and Jordan asked questions about a broad spectrum of injuries. Again, the numbers were dramatic.

In May 2000, Bailes and Jordan presented their findings at the

American Academy of Neurology’s annual meeting in San Diego. Out of 1,090 former players, 60 percent reported that they had sustained at least one concussion during their careers; more than a quarter reported more than three. The players with concussions, most in their fifties and sixties at that point, were reporting significant neurological problems: memory loss, confusion, speech or hearing problems, and headaches.

The news, preliminary as it was, was in many ways worse than what researchers such as Barth, Lovell, and Collins were uncovering. Those studies had shown that concussions had to be taken seriously, with symptoms that often lingered for days or weeks or even longer. But it was assumed that with time those symptoms eventually went away. After the release of his first paper in *JAMA*, Collins told the *Detroit News*: “If you give the brain time to heal, there’s no reason to see long-term deficits.”

But Bailes and Jordan were suggesting that that wasn’t necessarily the case. They were saying something quite ominous: that the head-banging endemic to the NFL might have far-reaching—even permanent—consequences.

Bailes vowed to study the issue further. He believed “a trove of information” was contained in Frank Woschitz’s cardboard boxes, a researcher’s gold mine. Later, those early results would remind Bailes of another health crisis he had witnessed. “It’s like when HIV started coming out; I was here in Chicago, and we didn’t know what it was,” he said. “There were these young men, 22, 23 years old, showing up with Kaposi’s sarcoma and other weird things that you shouldn’t get when you’re 23. It was the HIV suppressing their immune system.”

Looking back, Bailes believed that he and Barry Jordan had stumbled onto “the first whiff” of another new disease.

The early scientific breakthroughs of the 1990s involved almost exclusively men who toiled in white lab coats beneath the fluorescent lighting of hospitals and universities. But there was a connection between the growing interest in concussion research and the carnage unfolding in stadiums across the country. In many ways, the research was being fueled by the dawning awareness of football fans, who began to notice that the big hits they so relished seemed to produce a sobering

by-product: the vacant stares of their heroes lying motionless on the field.

In the tenth week of the 1992 season, the New York Jets traveled to Denver to play the Broncos. The Jets' premier receiver at the time was Al Toon, an elegant contortionist whose jazzy surname perfectly fit his improvisational style. Toon stood 6-4 and once made the Olympic trials in the triple jump. He frequently hurled himself into space to make impossible catches, climbing above defenders who lacked his speed and balletic grace. Toon often paid for it: The Steelers' Lloyd once knocked him out cold, then slapped the turf with his palm next to Toon's splayed body as if he were counting him out.

In Denver, Toon caught a pass and was falling near the sideline, his head about a foot off the ground, when linebacker Michael Brooks flew over him, catching the back of his head with his elbow. It was not a particularly dramatic hit—Toon would later say that Brooks "grazed" him—but the effect was like "a cannonball hitting me on the back of the head," he said. From that point forward, what Toon recalled about the play was gleaned largely from film and information he picked up from the Jets' trainers.

As he lay on a training table in the dank basement of Mile High Stadium, Toon found that there were many gaps in his memory. They included: How old am I? Do I have kids? What am I doing here? What year is it?

"I had to go through a process of remembering who I was," he told ESPN's Greg Garber.

Toon's symptoms—the headaches and disorientation, the projectile vomiting—had always dissipated, but this time they didn't: They grew worse. The concussion stayed with Toon like a "lingering flu." Loud noises, bright lights, the motion of a passing car, all made him swoon. He spent the next two weeks "in bed, in a dark room, curtains drawn, no noise, no kids, no conversation." As he lingered in his cognitive netherworld, the Jets put out an estimate that the concussion was the fifth of his eight-year career. Toon believed it was more like 10. He confided to Garber that he had contemplated suicide.

The team sent him to multiple neurologists. The one who led the case, Ira Casson, like Barry Jordan, had studied boxers and chronic brain

disease and had even examined Muhammad Ali's CT scans, determining that Ali had had brain damage even before the end of his career. Casson knew as well as anyone the ravages of the injury, what someone with an overpounded brain looked like. A decade earlier, Casson had led a landmark study that examined 10 boxers who had been knocked out. He discovered "cerebral atrophy" in half of them, an indication of chronic brain damage. Toon already had decided to put his fate in the hands of his doctors, and Casson, for one, had grave doubts: "I'm not sure that you should do this anymore," the neurologist told Toon. "I don't know what the next concussion is going to do to you." Toon interpreted this to mean that he might never wake up.

Toon had an economics degree from Wisconsin, making the dean's list his last two years, and was known as one of the smartest players in the league. He had recently signed a three-year, \$4.1 million contract but was already financially secure, having acquired his real estate license and used it to expand his own business. He and his family lived on a horse farm outside Madison. That made the decision easier. Weeping softly, Toon, still five months shy of his thirtieth birthday, announced his retirement on November 27, 1992, three weeks after his injury.

By the time Hoge went down two years later, writers were proclaiming 1994 the "Season of the Concussion." One bloody Sunday in October, three quarterbacks were knocked out: Troy Aikman, Chris Miller, and Vinny Testaverde. That season, an idea was floated to send defensive players to an NHL-like penalty box for flagrant hits on quarterbacks. Aikman's concussion had been caused by Wilber Marshall, a 240-pound linebacker. Marshall, then playing for Arizona, plowed the crown of his helmet into Aikman's chin, splitting it open and lacerating his tongue. Aikman, a bloody mess, made it to the sideline, where he was asked three questions by the Dallas doctor: What day is it? What month is it? What year is it?

"I think he scored 33 percent," said the doctor, J. R. Zamorano. Aikman was aware only that it was Sunday.

As the grisly episodes were recounted, one phenomenon was not lost on the fans and the media: The current generation of players was noticeably bigger, stronger, and faster than the one that preceded it. The prototypical new player was Giants linebacker Lawrence Taylor, a tornado of

violence who single-handedly launched a nationwide search for unique specimens who embodied the same combination of size, speed, strength, and, more inexact, ruthlessness. Wilber Marshall, in fact, was one of those people.

The physical consequences of this new phenomenon were obvious: As the game got bigger and faster, the destructive force behind the hits grew. Any fan could see this, but one of them happened to be an atomic physicist. Tim Gay liked to boast that he had played football at Cal Tech ("La Verne College used to kick our ass on a routine basis"). At the University of Nebraska, where he worked, his primary focus was polarized electron physics. Gay's works included *Use of Partial-Wave Decomposition to Identify Resonant Interference Effects in the Photoionization-Excitation of Argon*, but Gay also had carved out a niche as the resident expert on the physics of football. On Saturday afternoons, with a voice like a carnival barker, the bow-tied, bespectacled professor delivered one-minute lectures on the science of the spiral to 75,000 Cornhuskers fans who watched him on HuskerVision.

Gay eventually turned his side project into a book, *Football Physics*, in which he explored, among other things, changes in kinetic energy as football players got bigger and faster. He focused on the line of scrimmage, the Pit, where the battle for territory is most pronounced and the biggest players smash into one another on every down, creating huge amounts of destructive force. Hoge called it "the Box," a qualitatively different world from the perimeter, the place where "the big boys play." Drawing on figures from the NFL Hall of Fame and other sources, Gay calculated that the average mass of a lineman had increased by 60 percent between 1920 and 2000, reaching almost 300 pounds (that figure would climb to 310 by 2011). The average speed had increased by about 12 percent. Gay didn't want to limit himself to the static force elaborated by Newton's second law of motion (force = mass \times acceleration). He wanted to measure the potential for destruction inside the Pit; hence his focus on energy. "Energy is actually what goes into breaking bones and causing concussions," he said. "It's how much I crush him."

By Gay's calculation, the amount of kinetic energy unleashed in the Pit had effectively doubled as modern players evolved. Kinetic energy is a measure of combined mass (in pounds) and speed (in feet per second).

The figure Gay arrived at was 1,875 units of kinetic energy. "To put all of this in perspective," he wrote, "a bullet fired from a .357 Magnum handgun has about 300 [units] of kinetic energy, so we would need to unload a full revolver chamber into the defense in order to expend the same amount of energy on them. We might even suggest that the result would be no more deadly than getting hit by some of the offensive lines that Dallas put on the field in the mid-1990s."

For its part, the media seemed not entirely certain how to respond to this new old injury and whether to take it any more seriously than a strained hamstring or a groin pull. Greg Garber's piece for ESPN had been groundbreaking. The frank admissions by players like Toon, Hoge, and Harry Carson about their post-career suffering were poignant and, in many ways, harrowing. Yet when it came time to edit the piece, Garber, a decorated reporter who had written the script along with his producer, Christine Caddick, found that ESPN was reluctant to use the term *brain damage*. That's exactly what had occurred, of course: The players' brains had been damaged for weeks, months, and even years. Garber and Caddick met with the network's highest-ranking executives, who told them they couldn't use the phrase. Only at the last minute did it make it in the feature. In the back of his mind, Garber wondered how much of the debate had to do with ESPN's contract with the NFL, which at that point was worth not \$15.2 billion but a little over \$500 million.

Sportswriters described concussions with a mix of the old jocularity and newfound seriousness. There were scattered calls for reform. After watching Testaverde, then the Browns' starting quarterback, lose consciousness and, for a time, his senses, Cleveland columnist Bill Livingston pronounced the NFL's concussion problem "a disgrace." He decried the league's lighthearted treatment of the injury, its business strategy of "making money on pain." "Pro football doesn't just lovingly detail mayhem, it has helped create a mass culture that thrives on it," he wrote. Dave Anderson, the *New York Times*' Pulitzer Prize-winning sports columnist, warned that the NFL was courting "a tragedy" reminiscent of the hit that had left Darryl Stingley paralyzed in 1978.

The NFL, in a refrain that would seem eerily familiar years later, downplayed the crisis. Greg Aiello, the league's director of communication, repeatedly told reporters that the rate of concussions since 1989, when the NFL began to keep track, was unchanged: one concussion every three or four games. The data, Aiello said, had been collected by the teams and passed on to an epidemiologist who had crunched the numbers for the NFL's competition committee. "In the big picture, when you consider the number of times the head is impacted [in pro football], the number of concussions is relatively small," said Aiello. "But hey, they do occur. And maybe there's more we can do."

But of course it depended on how you counted concussions. The league, Aiello acknowledged, was counting head injuries as concussions only when a player lost consciousness or was seriously dazed. Garden-variety concussions were not part of the program. Joe Maroon did his own calculations and estimated that two to four concussions occurred in every NFL game.

That discrepancy perhaps should have raised red flags. At minimum, there was a 156 percent difference between the rate of concussions reported by the NFL and the rate reported by the senior neurological expert in the league. Maroon said that he, for one, was quite concerned. But few people seemed to notice.

Late in the Season of the Concussion, Tagliabue appeared with two other commissioners, the NBA's David Stern and the NHL's Gary Bettman, in the auditorium at Manhattan's 92nd Street Y to discuss the state of their respective leagues. The panel's moderator was the journalist David Halberstam, who had gone on to a career of writing books, including several about sports, after winning the Pulitzer Prize for his coverage of the Vietnam War for the *New York Times*.

After dispensing with questions about labor relations and league finances, Halberstam turned to the NFL's growing concussion problem. Tagliabue quickly dismissed the matter as a "pack journalism issue" and then used the league's dubious statistics to try to deflect concern. Tagliabue repeated the claim that the NFL experienced "one concussion every three or four games," which he said came out to 2.5 concussions for every "22,000 players engaged."

For Halberstam, it was a moment of déjà vu. He seemed to be taken

back to the days of the Five O'Clock Follies, the name the Saigon press corps bestowed upon the surreal, statistics-crammed U.S. government press briefings. Halbertstam compared the NFL commissioner to the former U.S. defense secretary: "I feel I'm back in Vietnam hearing McNamara give statistics," he told the audience, which howled.

Sports Illustrated, covering the exchange, lit into the commissioner: "Tagliabue's head has been spared this season's spate of bruising hits; on this issue he ought to be making better use of it."

Not long afterward, the NFL announced its own scientific initiative. At Tagliabue's behest, the league said it was assembling a subcommittee of experts to study concussions. Tagliabue's initiative would be called the Mild Traumatic Brain Injury Committee.

The NFL's most influential voice on concussions belonged not to the news media or a player or perhaps even the commissioner. It belonged to an agent.

Leigh Steinberg represented almost every major quarterback in the NFL. At a time when free agency was finally coming to football in a significant way and TV money was helping the NFL realize its full financial potential, Steinberg had emerged as one of the league's most powerful men. His reach extended into the commissioner's office, the networks, the front offices, and beyond. In December 1993, the seven-year-old Fox Network had paid \$1.58 billion to broadcast the NFC, a staggering bet that had knocked out CBS, the league's network and partner for the previous four decades. The transaction underscored how television was shaping the modern NFL. Steinberg derived his outsized power from his near monopoly of the stars of the show.

Steinberg had come out of Boalt Hall, UC Berkeley's prestigious law school. He had fallen into "sports agency," as the nascent profession came to be known, after a friend, Cal quarterback Steve Bartkowski, asked him to represent him in his contract negotiations with the Falcons. Bartkowski was the number one pick in the 1975 draft, and Steinberg landed him a deal for \$650,000 over four years, at the time the richest contract given to a draft pick in the history of the league. Steinberg was 26, not much older than his client. When he and Bartkowski touched down at Atlanta's Hartsfield Airport, Steinberg was astonished

to find the tarmac lit up like a movie set, a crowd pushing against a police barricade. "I looked at Steve like Dorothy looked at Toto when they got to Munchkin Land and said, 'I guess we're not in Berkeley anymore.'" For Steinberg, who was still trying to chart his own career path, it was a moment of epiphany: "I saw the tremendous idol worship and veneration that athletes were held in, how they were the movie stars, they were the celebrities. I saw the power that athletes had to potentially be cultural symbols, and I could see that football—although baseball at that time was still the most popular sport—was going to fit the new media, was gonna fit television and grow up together in a unique way."

By the mid-1990s Steinberg was at the height of his power. He brought a mixture of naked ambition, self-promotion, and Berkeley-style activism to the job. He insisted that his athletes take seriously their power as role models. He and his clients donated tens of millions of dollars to charity, setting up personal foundations and volunteering in their communities. Steinberg titled his best-selling autobiography *Winning with Integrity: Getting What You're Worth without Selling Your Soul*. He became sports' first true superagent. The writer-director Cameron Crowe trailed him for two years and then hired him as a consultant on *Jerry Maguire*, the 1996 movie about a brash sports agent who grows a conscience overnight.

The movie's plot turns on a scene in which an athlete who suffered a concussion wakes up to see his wife, his son (who appears to be about 12), his doctor, and his agent at his bedside. After the player, with his wife's assistance, remembers his name ("Wait, it's coming . . . my name is Steve Remo") and identifies his family, his freckle-faced son confronts Jerry Maguire, played by Tom Cruise, in the hallway.

"This is his fourth concussion," the boy says. "Shouldn't somebody get him to stop?"

"Hey, hey, hey," says the agent, checking his cell phone. "It would take a *tank* to stop your dad. It would take all five Super Trooper VR Warriors to stop your dad. Right? Right?"

"Fuck you," says the boy, flipping off the agent as he walks away.

The scene resembled a real one that had taken place three years earlier. Steinberg had Dallas quarterback Troy Aikman among his clients. When the Cowboys beat the 49ers in the 1993 NFC Championship

(played January 23, 1994), a defensive lineman accidentally kneed Aikman in the head during the third quarter. Afterward, the Cowboys said Aikman had a "mild" concussion. J. R. Zamorano, the team doctor, predicted: "He'll be ready for the Super Bowl. There's no contact in practices this week, so I don't foresee a problem." But it was enough of a problem for the Cowboys to put Aikman in the hospital for evaluation.

That night, Steinberg stood by Aikman's bed at Baylor University Medical Center. The city was still celebrating the Cowboys' second straight trip to the Super Bowl. As Steinberg describes the scene, Aikman is "in a darkened hospital room, alone, no doctor and this incredible celebration is going on which you can hear in the background—horns honking, people screaming. He looked up at me with a puzzled look on his face and said, 'Leigh, why am I here?'"

"Well, you suffered a concussion," Steinberg replied.

"Did I play?" Aikman asked.

"Yes, you played."

"Did I play well?"

"Yes, you threw some touchdown passes."

"What's that mean?"

"Well, it means you're going to the Super Bowl."

"He was happy, his face brightened," Steinberg said. "I sat there, and about five minutes later he turned to me with a confused look on his face and said, 'Leigh, why am I here? Did I play today? Did I play well?' The same exact questions. So I answered him, and about 10 minutes passed, and he looked back with the same puzzled expression and said, 'Why am I here?' It terrified me. I saw how tenuous the bond was between consciousness and dementia and realized that this young man who I cared for and loved was sitting alone as a result of a concussion and we had no idea what the consequences were."

The immediate consequences were that Aikman walked out of the hospital the next morning, not having slept, and got on the team plane for Atlanta, where Super Bowl XXVIII would be held. By Wednesday, he was practicing, and although his teammates said he was sluggish, he laughed it off and proclaimed himself fit to play. Steinberg knew better. Throughout the week, Aikman was dizzy, sometimes vomiting, and at one point led Steinberg to believe he thought he was still playing for

his Oklahoma high school team, the Henryetta Mud Hens. By Sunday, Aikman was coasting through the Cowboys' 30-13 blowout of the Buffalo Bills. A year later, he remembered almost none of it.

For Steinberg it wasn't much of a victory. He had become convinced that he was guiding his clients to ruination. He had reached his own turning point.

"I'm an enabler," he thought to himself. "That's all I'm doing."

Steinberg thought most agents were so beholden to their clients that they would indulge any fantasy, no matter how outrageous, to avoid endangering their fat commissions. "I used to say that if a player was on the ledge of a 90-story building about to jump, he would have a whole coterie of fans and his agent saying, 'The law of gravity, it doesn't apply to you! Go ahead, you can fly!'"

Steinberg, at least at the time, did not have that problem. He controlled 21 quarterbacks in the NFL and had written hundreds of millions of dollars in contracts. On the one hand, taking on the concussion issue was self-evidently bad for business. Neither the owners nor the players wanted to hear it; one client, Warren Moon, said to him: "You're probably right, but I wish you'd shut up." On the other hand, his activism could prolong careers, generate more contracts, and, at the very least, soothe his conscience.

He knew the first order of business was to gather more information. Steinberg had been setting up more and more of his players with neurologists, and he asked the doctors pointed questions to try to get to the heart of the matter: How many concussions are too many? What is the point at which an athlete risks long-term brain damage? Are there any methods to prevent those problems and, once they've occurred, treat them? "There were no answers," Steinberg said. Steinberg, whose battle with alcoholism later derailed his career, thought the whole era reminded him of how people once viewed public drunkenness as slapstick comedy and "there were people like Red Skelton and Foster Brooks and Dean Martin, a whole series of people who laughed and laughed about drunk driving. No one talked about the fatalities or the effects of alcoholism."

His solution was to set up informational seminars on the effects of concussions. He would bring in his high-profile clients and a panel of

concussion experts to educate the players and the public and put pressure on the league to address the issue. Steinberg invited Tagliabue, or at least a representative of his new Mild Traumatic Brain Injury Committee, to attend the first meeting in 1995. The response from the NFL was silence. Steinberg spoke privately to league owners and appealed to their pocketbooks, if not their humanity: If a brain-damaged player of Aikman's caliber could no longer take the field, he reasoned, not only would the team lose the player, but his salary would be counted against the newly instituted salary cap. But there wasn't much interest. Steinberg felt that the culture of denial was so embedded in the NFL that it was as if he had "asserted that the world was round instead of flat" and he was "one of the heretics."

Of course it wasn't just the league: Many of his own players refused to take the issue seriously. Steinberg held the first seminar at the Newport Beach Marriott, not far from his famous office, a memorabilia-stuffed museum to pro football that made a cameo appearance, along with Steinberg and Aikman, in *Jerry Maguire*. In addition to his superstar quarterbacks—Aikman, Warren Moon, Steve Young—he invited some of the less heralded athletes in his stable. One was a 49ers linebacker, Gary Plummer, who like Steinberg had gone to Cal, the main reason the superagent agreed to represent him.

Plummer's view of the seriousness of the concussion issue was best expressed by his response when a trainer once asked him how many fingers he was holding up. "One," replied Plummer, extending his middle finger.

To Plummer, just raising the issue contradicted pretty much everything he had been taught and believed about pro football. It was not that he wasn't aware of concussions; he had both experienced and inflicted them. But he viewed them as minor nuisances. When Toon and Hoge retired, his reaction was neither concern nor pity. Plummer thought simply: "They're pussies."

"I had been playing football since I was eight years old, and there is nothing more revered in football than being a tough guy," he said. "I prided myself on being a tough guy. I encouraged others to be tough guys. I did some horrendously stupid things in my career—like having surgery on Tuesday and playing on Sunday twice. I would never give you

specific names, but there are hundreds of guys who had more talent in one hand than I had in my entire body, but because they weren't tough, they couldn't play in the NFL. The coaches have euphemisms. They'll say: 'You know, that guy has to learn the difference between pain and injury.' Or: 'He has to learn the difference between college and professional football.' What he's saying is the guy's a pussy and he needs to get tough or he's not going to be on the team. It's a very, very clear message and literally hundreds of guys that I played with were just pussies."

Plummer's solution to pain was not rest or retirement but Toradol, a painkiller that had come on the market in 1989 and soon swept through the NFL like a miracle drug. In a 2002 academic paper first mentioned in the *Washington Post*, 28 team doctors reported injecting Toradol every Sunday, some to as many as 35 players. Plummer, like many, injected the drug preemptively, "literally right before the game," to mask his injuries. "It's like an overall body analgesic, and it dulls the pain," he said. Plummer and another ex-49er, the center Ben Lynch, said that as the season wore on, players lined up 10 or 20 deep before games to get their injections. "I mean, it really was like a production line," said Lynch, "a line of guys that would just pull their pants down, show their butt cheek, and the doctor would give them a shot of Toradol. It wasn't, 'Come in and shut the door. Hey, how ya doin?'" It was just *boop, boop, boop, boop*."

The drug lasted "almost exactly four hours," Plummer said, after which "it feels like literally a gang of thugs had just taken a baseball bat to your body." That included his head: "When the Toradol wore off, I'd just get this unbelievable headache for somewhere around six hours. It felt like somebody had hit you in the back of the head with a two-by-four." The pain revealed one of the more insidious aspects of Toradol: The drug masked the actual injury to allow players to play, increasing the likelihood of making the injury worse.

Plummer resisted attending the seminars but was finally "convinced" after two of Steinberg's assistants enticed him with "a car service to pick me up, a hotel room, and ordering \$2,000 worth of stuff out of a Nike catalogue."

Now, in a conference room at the Newport Beach Marriott, Plummer listened to the medical experts Steinberg had assembled describe the dangers of concussions. Mark Lovell was there from Pittsburgh,

explaining his new concussion test. So was Julian Bailes, talking about the potential risks of long-term brain damage. Plummer sat in the back of the room next to Steve Wallace, a 49ers tackle who had sustained so many concussions that he had taken to wearing a kind of helmet for his helmet: a half-inch-thick Styrofoam "ProCap" that made him look so much like an alien that his teammates called him Gazoo after the big-headed character on *The Flintstones*.

"They're up there giving their spiel, and I wasn't even paying attention because I'm like, 'You know, this is my *job*: to freaking smash people. I really don't care that these quarterbacks get hurt,'" Plummer said. "So all of a sudden this guy—I don't know who he was, some doctor—he says: 'Many of you don't understand that there are three grades of concussions. A Grade I concussion is seeing stars, being slightly disoriented. If you had one of those, you need to get evaluated on the sideline. And if you've had them back-to-back, you probably need to sit out for a week or two.'"

"I had been bored stiff, but now I literally jump up out of my chair and I say: 'I don't know where you're getting your data from, but you've obviously never played in the NFL.' The guy's kind of startled, and he says: 'Excuse me? What do you mean?' I said: 'If I didn't have five of your so-called Grade I concussions a game, that meant I was basically inactive. And by the way, there are some plays when you get *two* of those on the same play.'"

Plummer was on a roll: "You try putting your forehead underneath a 330-pound offensive guard and then get off of him to take on a 220-pound running back," he told the doctor. "Trust me, you're going to see stars just like the cartoons with the little birdie flying around your head. I'm in my thirteenth year of professional football, and I have five of these a *game*. So according to your theory I've had over 750 concussions, and you know what? I'm pretty lucid."

"The guy started to get argumentative, and I told him to take his clinical studies and put them where the sun don't shine because he's full of crap."

That, of course, was not the public message that came out of Steinberg's seminar. The agent announced that he intended to produce a white paper on concussion assessment and treatment and present it to

the NFL. It would call for the elimination of AstroTurf fields, a study of helmets, and the creation of an independent "medical referee," preferably a neurologist whose sole job would be to determine whether a player should return to play. Some of the players in attendance, mainly the quarterbacks, seemed to take the discussion seriously. Aikman admitted that he barely remembered the details of the previous year's Super Bowl. He noted that the NFL benefited from videos that showed particularly vicious hits and that the revenue "goes right into NFL Properties' pockets. They're kind of straddling a line there."

"I've had concussions, and I've come back too soon," Aikman said. "People this year were asking me, 'When is enough enough?' The next one could maybe be my last one. I've said before if it comes to the point that I'm worrying about concussions, I will get out."

Aikman would play five more years.

Steinberg believed he was "dancing on the edge of the apocalypse to raise these issues. No one wanted it to be true. No one wanted concussions to pose a threat to the NFL. No one wanted there to be long-term ramifications." When word from the league eventually got back to Steinberg through a team official or someone else connected to the commissioner, the response was always the same: "Show us the studies. There are no studies." But Steinberg felt he was making progress. He had aligned himself with the people who believed the world was round, people such as Lovell and Bailes and Barry Jordan. Those men had produced studies, and soon there would be more. Steinberg thought the force of his argument eventually would win the day, and the NFL—the commissioner, the players, everyone—would wake up to the reality that the sport needed to change drastically. At least that was what he thought.

THE MIKE WEBSTER

HEALTH CARE SYSTEM

Team Webster's two-pronged strategy for the Hall of Fame had failed miserably. Webster's rambling acceptance speech, even delivered on 80 mg of Ritalin, only reinforced the perception that he was to a large degree unhinged. His latest moneymaking scheme, the Steelers Hall of Famer collective, also went nowhere. Having ripped up Bradshaw's \$175,000 check in a grand gesture of pride and pique, he returned to Pittsburgh, where he was now living with his oldest son, Colin, in a two-bedroom apartment furnished with camping utensils and furniture culled from yard sales and the Dollar Store. Colin and Mike ate sparingly: "We'd have a little pasta or just sliced bread and toast," Colin said. "Once in a while we'd get some cheap Italian sausage or hamburger and throw them in the sauce and kind of stretch it."

Colin sarcastically referred to those lean times as "my bachelor pad years." He was 19, just out of high school, his life a 24/7 job of looking after, caring for, and chauffeuring around his famous father. But what else could he do? He had been living in Wisconsin with his mom and his siblings when they received a call one day that his dad was in trouble in Philadelphia. Colin and his sister Brooke immediately hopped on a train. When they arrived in Philly, they found Webster nearly catatonic and living in a suite at the historic Warwick Hotel.

"He looked like death," Colin said. "He was just very addled." Webster was holding a bottle of large oval-shaped pills, which Colin understood to be muscle relaxers. "He would take some of these horse pills and lay down. Then he'd take some more 15 minutes later. I'd be like, 'Dad, no!'" Colin and Brooke somehow got their 250-pound father into the shower. A moment later, they heard a crash. "I thought he was going to be dead when I went in there because the smack was so loud; he tripped over the tub line and it was just *boom!*" said Colin. "It was a marble floor, and the sound was just sickening. I can hear it to this day." He found his father sprawled on the floor but otherwise okay. A couple of days later, Colin took Mike back to Pittsburgh and moved in with him.

At that point, it was hard to say which was more alarming: Webster's mental or physical deterioration. He was 45. His hands and feet were swollen and disfigured; his perpetually aching right heel tormented him. Webster seemed susceptible to grotesque and inexplicable afflictions; one day, without warning, dozens of red, open sores erupted across his arms and his back. As often as not, Webster would ignore those myriad ailments or treat them himself with a variety of medieval coping mechanisms that combined the creativity of alternative medicine with Ace Hardware.

Between his sparse meals, Webster subsisted on junk food—Coke, Dots, Little Debbie Cakes, pecan swirls—and ever-present tins of snuff. Soon his teeth began to fall out. He couldn't afford a dentist, and so "he'd Super Glue his teeth back into his head," said Colin. Webster lost—and reset—about 10 teeth this way, according to Colin. "It was kind of awesome in a not necessarily so awesome way." The bottoms of Webster's feet were cracked—long fissures that made it painful to walk. This he solved by wrapping them in duct tape. Webster slept erratically; because of his constant back pain, he shunned beds and often nodded off in a chair. When that didn't work, he walked outside and tried sleeping behind the wheel of his truck.

When that didn't work, Webster took more drastic measures. He had acquired a number of mail-order stun guns. "One was real long, like a police baton," Colin said. "It had the two prongs, and you could see a clear blue spark; it'd make that *crack, crack, crack* sound. And then

he had one that was called the Myotron, which he was really excited about because it was guaranteed to put somebody out for thirty minutes." Sometimes, Webster put himself to sleep with the Myotron, calling it soothing. Colin, who inherited his father's love of reading and penned science fiction novels, joked that his dad had "a primordial nervous system that allowed him to absorb energy" like a superhero.

One day, Mike asked Sunny Jani, his bookie and caretaker, to put him out. "He had really bad pain, and he just wanted to go to sleep, you know?" said Sunny. "I did it only once. I didn't know if he wouldn't wake up and I'd have to go to jail." Sunny winced as he gingerly applied the Myotron to Webster's thigh. Mike was jolted unconscious. "I'm like, 'Oh, fuck, what the hell just happened here?'" Sunny said. "I'm like, 'Holy heck, wake up, man! Wake up!'"

Mike came to about a half hour later. Sunny, standing over him with a glass of water, felt his heart pounding.

"Man, that was the greatest nap I've ever had," said Webster.

"Please, Mike, don't ever ask me to do that again," Sunny told him.

Sunny came to refer to Webster's various methods of self-treatment as the Mike Webster Health Care System.

Team Webster clearly needed a doctor. Shortly after the Hall of Fame induction and Webster's scattered acceptance speech, James Vodvarka, an internist in Wintersville, Ohio, was talking with one of his hunting buddies, former Steelers lineman Steve Courson.

Courson was concerned about Webster. "You know, there's something wrong with him," he told Vodvarka.

"What do you mean?"

"Well, he's living out of his truck, and he's not able to function. He can't hold a job. He's just not able to function in society."

Like Sunny, Vodvarka had grown up in McKees Rocks. He was a die-hard Steelers fan who worshiped Iron Mike as a leader on those fabled teams. He could still see him sprinting out of the huddle, his bulging biceps exposed in the subfreezing weather, or delivering measured, articulate analysis after the game. When Courson asked if he'd be willing to examine his friend, Vodvarka said he would be delighted.

Almost from the moment Webster came through the door, Vodvarka could tell something wasn't right. Although he was an internist,

Vodvarka knew a lot about brain dysfunction. His father had had a stroke years earlier, and more recently his son had been born with a slightly deformed skull and a brain bleed.

Vodvarka noticed that Webster had a "Parkinsonian stare." "You know, when you watch somebody, it's like at times there's no expression?" he said. "There's no emotion, and it's like somebody's looking right through you when they talk to you." Tracing his hands over Webster's skull, Vodvarka discovered a cluster of knots on his forehead: scar tissue that he thought was indicative of trauma. Vodvarka had seen this in car-crash victims, but typically there was one lump where the head had hit the steering wheel or the dashboard. In Webster's case, there were lumps everywhere.

Vodvarka thought immediately there could be only one source of Webster's problems. "Here's a guy that's pretty discombobulated, beat up physically, and played the position of center in football," he said. "I mean, it didn't take much thinking to think that football was the main cause."

Vodvarka told Webster he wanted him to return for regular follow-up appointments. Webster did, although it was never clear if he would show up on the right day, much less the right time. In many ways it was an ideal arrangement: Webster had neither money nor health insurance (besides the Mike Webster Plan); Vodvarka was only too happy to treat him for free. In that regard, Vodvarka was like many people hanging around Webster, basking in his former greatness. When they went out to eat, Vodvarka invariably picked up the tab. "He'd be stopping people on the way out of the restaurant going, 'Hey, do you know who this is? This is Mike Webster,'" said Colin. "It was just really awkward."

But Vodvarka also was indispensable, the perfect doctor for Team Webster—on call at all times and a trusted and reliable source when Mike ran out of his meds. Webster called him Jimbo and soon was making regular one-hour drives between Pittsburgh and Wintersville, often to pick up prescriptions for Ritalin or Ultram, a pain pill.

It was clear to Vodvarka that Mike was disabled; no way could he hold down a job. But Webster had never filed for disability benefits with the NFL. The league had a program, the Bert Bell/Pete Rozelle NFL Player Retirement Plan, that granted benefits to retired players and their

families. The plan was administered jointly by the players and the owners; three reps from each side ruled on disability claims. But many former players viewed the plan with contempt. It was the place where their pleas for help went to die or at least remain in perpetual limbo. They complained of a byzantine application process, of being sent to doctor after doctor, of their claims being stretched out interminably. A decade later, when the NFL and the players union were called before Congress to answer questions about the league's commitment to retired players, officials would acknowledge that only 317 out of more than 10,000 eligible players were receiving benefits.

Brain injuries were viewed as the hardest sell. It was as if the NFL's disability board was channeling the views that Tagliabue had articulated to Halberstam at the 92nd Street Y. Some players and lawyers came to believe that the board simply did not award benefits for any neurocognitive impairment—*ever*. Brent Boyd, a Minnesota Vikings offensive lineman who had been diagnosed by several doctors with football-related brain damage that prevented him from working, told Congress that the board was using "tactics of delay [and] deny" in the "hope that I put a bullet through my head to end their problem."

But Vodvarka believed that if anyone deserved disability benefits—to help him solve at least a few of his myriad problems—it was Webster. Vodvarka knew it would be an immense challenge. Webster certainly couldn't handle it himself. He decided Webster needed a lawyer who was smart and tough enough to stand up to the NFL. Vodvarka called a judge he knew in West Virginia.

"What if you had an NFL player that's hit rock bottom, but there's a reason for it and nobody will listen?" Vodvarka asked the judge without naming Webster. "Who would be an attorney that I could get that would be able to go against one of the biggest entities in our country and not be intimidated?"

The judge replied without hesitation: "Bob Fitzsimmons—he's the best."

Mike Webster and Bob Fitzsimmons had one major thing in common: Neither of them slept. On most nights, up until midnight and often beyond, Fitzsimmons could be found in his office, a

converted firehouse on Warwood Avenue, one of the main thoroughfares in Wheeling, West Virginia. As a grace note, Fitzsimmons had kept the fireman's pole, which ran between the first and second floors next to a mahogany staircase. When Mike and Sunny first went to meet him, Fitzsimmons penciled them in for 10. "Mike, what kind of lawyer works at 10 at night?" Jani asked.

In fact, Fitzsimmons was the kind of lawyer who with a single glance conveyed the impression, "You do not want to fuck with me." That happened to be an accurate impression, because Fitzsimmons had carved out a considerable reputation in the Ohio River Valley as the man to turn to on the biggest cases involving medical malpractice, coal-mining accidents, toxic exposure, and so on. The region, the heart of the nation's rust belt, produced enough litigative fodder for generations of personal injury attorneys, and Fitzsimmons was now bringing his sons into the business. Fitzsimmons's father had been a plumber, and Fitzsimmons had worked his way through high school, college, and law school as a member of Local 83 of the United Association of Plumbers and Pipefitters. He was neither tall nor particularly imposing, but he projected a coiled intensity that seemed to lie just below the surface. One thing was crystal clear: If Bob Fitzsimmons joined Team Webster, he would be nobody's sycophant.

Fitzsimmons didn't normally take disability cases, and so he wasn't initially certain how he could help. But as Webster began to talk, Fitzsimmons realized that (1) something was very wrong with the legendary player and (2) Webster's case was not totally dissimilar to other personal injury cases he had handled. Fitzsimmons had already read and heard some of the stories about Webster, that he was "some nut case running around out there." Instead, he found him intelligent and well read, instantly likable, but with no apparent ability to focus. Every two or three minutes, Webster would change the subject. Fitzsimmons tried to obtain his medical history—Have you seen a doctor? What have you been treated for? Who did you see?—but Webster was no help there. There were long pauses as Mike hunted for words. "He was a total blank," said Fitzsimmons. "It was like he had amnesia."

Fitzsimmons thought it was obvious: Webster had some sort of closed-head injury. This was Personal Injury Law 101: Client gets in car

crash, lawyer brings in psychologist to do workup, damages are awarded. "It's been a common thing," Fitzsimmons said. "It's been common now for years and years and years."

This case would prove slightly more complicated than that. If Fitzsimmons didn't fully grasp the complexity of the journey he was about to embark on, he soon would. It would involve not only the all-consuming and unpredictable care and feeding of Mike Webster, a client who would end up all but living with Fitzsimmons, but the most powerful entity the lawyer had ever confronted: the National Football League.

But that was later. For now, Fitzsimmons spent much of 1998 setting up a series of psychological exams for Webster. He sent him first to see Fred Krieg, a Wheeling psychologist and professor at nearby Marshall University. Just getting Mike to the doctor could be a slapstick adventure. He canceled several appointments, and then, on the day he did show up, he was two and a half hours late because he got lost getting to an office that was less than three miles from Fitzsimmons's office. Webster was off his Ritalin when he saw Krieg, and so an evaluation that should have taken only a few hours ended up lasting two days. Without Ritalin, Webster admitted to the doctor, "I can't think straight."

Krieg took Webster's personal history and performed a battery of tests. He was moved that even though it was to Webster's advantage to do poorly—the better to make his case to the NFL—he tried hard to impress the doctor. He sugarcoated his problems and focused on his physical ailments rather than his mental and emotional ones. "He is obviously a very proud man who is somewhat embarrassed by his present situation," Krieg observed.

Krieg concurred with Vodvarka: Football had given Webster irreparable brain damage. He wrote: "I believe that Mr. Webster's condition is caused by many years in the NFL and the repeated blows to the head he received as a center." Krieg compared Webster's condition to that of a punch-drunk boxer. "It takes very little time to realize that he has fallen from the position of hero to one of pity," he wrote.

Fitzsimmons also sent Webster to see Charles Kelly, a local family practitioner and social worker who also dealt with mental health cases. Among other things, Kelly worked as a ringside physician at West

Virginia boxing matches. To Kelly, like Vodvarka and Krieg before him, the situation was obvious: Football had given Webster chronic brain disease. "It is my opinion that Mr. Webster suffers from encephalopathy caused by head trauma," he wrote.

Fitzsimmons turned finally to a forensic psychiatrist at the University of Pittsburgh Medical Center named Jonathan Himmelhoch. Himmelhoch would examine Webster six times over three months, more extensively than any other doctor except perhaps Vodvarka. He then wrote a devastating six-page summation of how football had destroyed Webster mentally and physically.

Himmelhoch described Webster as a confirmed "encephalopath"—a person with chronic brain injury—whose "totally disabling" condition was the primary reason he was now living like a "vagabond, often using his old pickup truck as a home." In Himmelhoch's opinion, part of Webster's desperate condition derived from the fact that his medical treatment had been compromised from the start of his career. His care, he wrote, "has been delivered by doctors working for two masters—1st the Pittsburgh Steelers and second, Michael L. Webster." Those doctors repeatedly allowed or encouraged Webster to play hurt, essentially refusing to save him from himself to advance the interests of the team. "Full recovery of subtle head injury is a necessity before resuming any job," Himmelhoch wrote. "If there is no recovery period, subtle, then manifest cortical injury is insured. One can conclude, therefore, to reasonable medical certainty that Mr. Webster's progressive deteriorating encephalopathy began while he was still playing NFL football."

Webster, Himmelhoch concluded, "suffers from a traumatic or punch-drunk encephalopathy, caused by multiple blows while playing center in the NFL."

The disability case became Webster's obsession. It was a forum to show the world how football could destroy a man's mind. At the same time, the case fed Webster's growing hatred of the Steelers' brass and the NFL.

Webster came to believe it was his destiny to restore the dignity of thousands of battered players and avenge the league's sins of abusing and discarding them. As Fitzsimmons gathered evidence, Webster

raged against those he perceived as trying to stop him, including Steelers owner Dan Rooney, PR man Joe Gordon, the Steelers' organization, and the retirement committee itself. He became convinced that the Steelers had burned his medical records and paid off doctors to torpedo his case. In fact, the opposite was true. Fitzsimmons would later say that Rooney called him personally to ask how he could help and notify him that he had lobbied the league on Webster's behalf. Even in the worst of times—and they would soon get very bad—Fitzsimmons had nothing but good things to say about Dan Rooney and the Pittsburgh Steelers.

Here was the essential, sad truth about Mike Webster. His cause was just. He was leading a fight that eventually would lift the secrecy and shame that shrouded an untold number of former players sustaining the devastating effects of head trauma and other football-related injuries. His struggle would significantly advance the science of concussion and the search for the truth about the connection between football and neurodegenerative disease (Fitzsimmons called him the "father of the whole thing"). Yet the disease now ravaging Webster's brain was plunging him into a world of delusion, incoherence, self-loathing, and rage. It was an increasingly dark world.

Webster through the years had collected an array of firearms: a .357 Magnum revolver, a Sig Sauer P226 semiautomatic pistol, an M1911 semiautomatic pistol, riot shotguns, stump shotguns, hunting rifles. He kept them under his bed and in his truck. Now, when he launched into a particularly intense rant, he told his son Colin that what he would really like to do was kill Dan Rooney or Joe Gordon or the many people connected to the Bert Bell retirement plan.

"He wanted to go shoot these guys in the head," said Colin. "They don't know how close I guarantee you it came to happening on many occasions. Dad literally wanted to go and shoot these guys, some of them that were messing with him."

Colin, while living with Webster, had absorbed his father's rage and in many ways came to share it. He said he understood the desire for revenge. The only thing that held his father back, Colin believed, was his fear that such an act of violence would reflect badly on his family.

Webster thus poured his emotions into legal pads and notebooks,

which he toted everywhere in a heavy satchel. Webster's fingers were so mangled, his knuckles so swollen, that he couldn't hold a pen for very long. To write, he used the same duct tape that held his feet together and wrapped it around his fingers. He holed up for hours at Kinko's or Barnes & Noble, at rest stops during his wanderings along the highway. He sent the letters to almost everyone he came in contact with: his doctors, his friends, his children. Fitzsimmons received letters almost daily, some hand delivered, some faxed from wherever Webster happened to be writing. Fitzsimmons cleared out a storage room in the basement and let Mike use it as an office where he wrote and sometimes slept. Webster bathed himself with paper towels, leaving water all over the floor of the basement's tiny bathroom. Fitzsimmons would leave late at night, only to find yet another letter stuck to the windshield of his car. Some were 20 or 30 pages long. By the end, the lawyer had collected hundreds. Some went unread; there were simply too many to keep up. Others were incomprehensible, depending on Webster's mental state.

Almost always, the letters revolved around the disability case. His bitterness was palpable:

Dear Bob,

Thank you for Taking the time to See me Today. I know you are Busy and I Expected that the Burt [sic] Bell People under the Direction of Dan Rooney and His Associates will Drag this out and Deny me a Thing so that I Never make it out of my own Personal Hell!

Often they were jumbled and despairing:

*No Money Poverty Worse Every day. No money many weekends almost everyone sit can not do anything or Go anywhere. No source of Help and Where to Turn So I do not know when last time any Fun & Enjoyment and Cost of Medical and other Costs has been staggering.
My goddamn writing and mind are going to shit. Wow.*

Occasionally they were hopeful:

Restoration of my Past my name and the lives and future of my kids, my mind, body, honor and to have a chance to live out my life in a little peace and harmony, then I can go to work for you, Robert, investigating and cracking the case, underground secret investigation and super snooper, sergeant Columbo. That's me!

Often they were delusional, starting with precise lettering and dissolving into a looping, incomprehensible scrawl. In one, Webster even attacked Carl Peterson, the Chiefs' general manager, who had given him a job a few years earlier when his life was falling apart. Webster had once considered having Peterson introduce him at the Hall of Fame induction. Now he referred to him as "another S.O.B Brownnose FemeNazi" and railed against the system that he believed had used him up:

It would Be the same as Having you come in my House Bend my wife over the Couch Fuck Her in The Butt and, Beat up abuse my Kids etc while I tell them It's O.K. Family These Guys Gave Me The privilege of working For Them and Getting the shit Beat out of myself and Despite Helping Them and The Coaches have High Percentage of winning Records and multiple championship that sell out every Game excess profits etc and can always get Jobs, They Want Just a Little Free Liability To Keep Taking from Us!

Webster, ominously, often quoted from Revelation 6:8:

*Then Behold a Pale Horse
The Man Who Rode Him Was Death
And Hell Followed With Him*

"No Revenge, No Sir," Webster scrawled on a scrap of paper ripped from a small daily planner. "Not Revenge, But Reckoning!"

Webster regularly threatened to become the first player to quit the Hall of Fame to protest the plight of the retired players, many of whom he believed also had brain damage. He thought the Hall had come to

represent the exploitation of the men who had built the league, including and especially him. Webster swore many times that he intended to sell his Hall of Fame ring and his four Super Bowl rings to raise cash and get rid of the valuable keepsakes he claimed he no longer cared about.

Sunny had turned the Super Bowl rings into yet another money-raising scheme—not by selling them but by *renting* them to collectors; at one point he used the rings to obtain a \$90,000 line of credit from an Altoona lawyer. But Webster still insisted he wanted to sell them. Once he claimed to have lined up a deal for \$100,000—\$25,000 for each ring. Sunny called Fitzsimmons in a panic. By now, Fitzsimmons was Team Webster's head coach, the one man who could tell Mike what to do. Sunny thought Mike held Fitzsimmons in the same regard in which he once held Chuck Noll. Fitzsimmons called a meeting for 11 P.M. at his office. Sunny managed to get Webster there early.

Webster was agitated, pacing around the conference room.

"I don't need these fucking things!" he screamed. "They aren't any good to me, okay?"

Webster said he needed the money to send to Pam and the kids. Sunny implored him: "Mike, your legacy is more important than \$100,000."

Three men in black trench coats ("Straight out of central casting," said Fitzsimmons) showed up to consummate the deal for the Super Bowl rings. It seemed that there was no stopping it. Then Fitzsimmons tossed a Hail Mary: "Mike, I can get you \$200,000!" he said. "I know people who will buy these." The trench coats left. Webster kept his rings for another day.

Despite all the insanity that his condition engendered, Webster was acutely aware of what was happening to him. In addition to the mainstays on Team Webster, Mike had become good friends with Charles Kelly, one of the doctors who had evaluated him for his disability case. Kelly was kind and soft-spoken, with the same small-town upbringing as Webster. When Mike was on Ritalin, in the quiet of Kelly's home outside Wheeling, it could be hard to tell that he was even sick. He would bring over Kentucky Fried Chicken and a collection of tomahawks he had acquired and show Kelly's son how to fling them against

a tree. Webster and Kelly would sit around the table for hours and talk politics and history and life.

Often the conversation turned to brain trauma. Webster saw himself as an advocate for the issue, particularly as it related to football. He brought Kelly textbooks on brain damage, marking them up as if he were a medical student. One was titled *Traumatic Brain Injury: Associated Speech, Language, and Swallowing Disorders*. On page 235, Webster underlined several sentences, including: "Difficulty in establishing psychosocial well-being following [traumatic brain injury] represents a pervasive impediment to the social reintegration of individuals with TBI and affects their quality of life."

Mike told Kelly that once he won his disability case, he wanted to use the money to start a foundation to offer legal and medical support to players with cognitive issues.

"He talked to me about that a lot," said Kelly. He would come to see that as Webster's legacy.

On Saturday, February 20, 1999, a few days after dropping off a Ritalin prescription to be filled at an Eckerd Pharmacy in Rochester, Pennsylvania, about 25 miles north of Pittsburgh, Webster returned to pick up the drugs. Federal agents walked up to him and said: "Mr. Webster, you're under arrest."

The pharmacist had called the authorities after learning that the doctor listed on the prescription no longer practiced in Pennsylvania. The Drug Enforcement Administration alleged that Webster had forged Ritalin prescriptions on dozens of occasions all over the Pittsburgh area: Rochester, Center Township, Kennedy Township, McKees Rocks.

Exactly how Webster committed his crimes was not totally clear. The fact that he had been writing his own prescriptions was not in dispute. Sunny said a sympathetic doctor/Steelers fan had issued Webster a blank pad, but that was never pursued. Sometimes Webster apparently changed the numbers on valid prescriptions so that 90 magically became 190.

Regardless, the arrest was a PR disaster and a sign that his drug use was out of control. "If you'd let Mike pop Ritalin all day, he probably would have done it," said Vodvarka. "If he'd had an unending

supply, he'd have taken one every hour." In fact, Vodvarka's files bulged with hundreds of prescriptions he himself wrote for his friend. Webster couldn't function without Ritalin. Himmelhoch, the University of Pittsburgh psychiatrist who evaluated Webster for his disability claim, helped get him out of the charges with only probation by persuading the judge that Webster had forged prescriptions "for a drug that was and is appropriate treatment" for his brain damage. Ritalin "lifts the scales of [his] confusion," Himmelhoch wrote. But it was an exceedingly sharp double-edged sword. Ritalin is a stimulant, like cocaine; among other things, it clearly was fueling Webster's manic literary life. "He'd stay up several days and take it round the clock and write you these notes," said Vodvarka, who received numerous letters. After the arrest, Vodvarka decided to cut Webster off. By enabling his addiction, he worried, he could jeopardize his medical license or, worse, Mike might overdose.

Fitzsimmons scrambled together a press conference at a Holiday Inn outside Pittsburgh to make the case that Webster wasn't responsible for his actions, that football had altered his brain. He brought in the doctors: Vodvarka, Kelly, and Krieg. Some of Webster's former teammates, including Rocky Bleier, Mel Blount, and Randy Grossman, were recruited to show support. But behind the scenes, some players argued that jail might be the best option for Webster, if only to get him off the streets and free him from his addiction.

Team Webster gathered in a room to prepare. Fitzsimmons had written a statement for Webster, but Vodvarka and others worried that he couldn't deliver it in his condition. Webster sat in the middle of it all in disgrace. "Everyone's gonna think I'm a criminal," he told Colin. It was the lowest point of his entire soul-shattering post-career ordeal. "You could see it just clobbered him," said Colin. Now, between Webster's obvious depression and his erratically functioning brain, Vodvarka, Fitzsimmons, and others tried to figure out how to get him through the humiliating press conference.

Vodvarka and Fitzsimmons pulled Webster aside 30 minutes before it started.

"Listen, take your Ritalin now so it kicks in and you can organize your thoughts," Fitzsimmons told him.

Thus it came to pass that shortly before offering a contrite apology

to the city of Pittsburgh for forging Ritalin prescriptions, Webster gulped down 80 mg of Ritalin with a cup of water.

"I want to apologize very specifically for any embarrassment and sadness these allegations have brought," Webster said. He choked up twice while reading the statement. "I am not seeking your pity or sympathy. I'm not seeking a pardon for my actions, and I'm not really asking for your understanding—even though grown men need understanding."

The press conference was largely successful. Webster came off as sympathetic, a hero brought low by his overreliance on an obscure drug he needed for injuries related to the years of profound joy he had given to Pittsburgh. The focus quickly shifted from his crimes to his head. But this had an unanticipated effect: The discussion of Webster's brain touched off a mini-debate over whether football had actually caused his problems.

On one side were doctors such as Vodvarka, Kelly, Krieg, and Himmelhoch, who made their views known that the repeated blows Webster sustained during his illustrious Steelers career had turned him into the damaged man he was today.

"Mike has the football version of punch-drunk," Krieg said.

But there was another side. Curiously, it was led by Joe Maroon, the Steelers' longtime neurological consultant. Five years earlier Maroon had advised Merrill Hoge to retire because of the fear that repeated concussions would leave him permanently impaired. Now Maroon told the *Post-Gazette* that such long-term injuries were rare. Of the claim that football gave Mike Webster brain damage, Maroon said: "That's not confirmed." Maroon, of course, was one of the doctors Himmelhoch had accused of working for two masters: first the Steelers and then Webster. He was at least indirectly responsible for the player's medical file, which showed hardly any signs of brain injury during his 15 years in Pittsburgh.

The *Post-Gazette* story went on to tout what it called the "Pittsburgh Steelers Test Battery," a neuropsychological exam developed by Maroon and his University of Pittsburgh colleague, Mark Lovell, as an indication of the team's commitment to treating concussions. Maroon explained that the test was now used by every team in the National Hockey League and a dozen teams in the NFL. An affordable software version soon would be available for high school trainers, the story said.

Maroon wasn't the only doubter. The Bert Bell/Pete Rozelle NFL Player Retirement Plan had gotten back to Fitzsimmons with a response to Webster's disability claim. Four doctors weren't enough, the NFL told Webster. The board wanted a fifth doctor: an independent neurologist who would examine Webster on the league's behalf. This tactic was familiar to many retired players, who regarded it as a sham, part of the league's callously indifferent bureaucracy, which they believed was designed to keep them from getting what they deserved. The "independent" doctor invariably came from a list of physicians compiled by the NFL. The doctors on that list, it was thought, frequently sided with the league.

Coming on top of the Ritalin arrest, this news was greeted by Team Webster with overwhelming despair. As addled as Webster was, there was a growing feeling among Fitzsimmons, Sunny, Vodvarka, Colin, and the others that Webster was right: The NFL intended to let him rot. Their paranoia was such that even the location of the independent doctor the NFL had recommended—Cleveland, the home of the Steelers archrival—was viewed as part of a magnificent setup.

Nevertheless, on June 21, 1999—four months after his arrest—Webster traveled to the offices of Edward Westbrook, the NFL's handpicked neurologist. Westbrook, a distinguished-looking man with silver hair and wire-rimmed glasses, had an Ivy League education and worked at University Hospitals Case Medical Center in Cleveland. He had played football in high school until he broke his collarbone, after which his coach advised: "Don't play college football. They'll kill you." Westbrook then had rowed at Harvard.

By the time Webster came to see him, Westbrook had examined perhaps a half dozen former NFL players on behalf of the league. Whatever was going on inside the Bert Bell/Pete Rozelle NFL Player Retirement Plan, Edward Westbrook was not in denial. He had found himself "impressed and maybe horrified" by the degree of brain damage he encountered in the players he examined. One young former player had Parkinson's disease, which Westbrook thought was probably connected to repeated hits on the field. The rest of the players had varying degrees of severe cognitive dysfunction.

Westbrook didn't look at the reports from Fitzsimmons's doctors

before he examined Webster. He did go through the medical reports from the Steelers and Chiefs and was surprised to find almost no mention of head injuries. Webster complained about headaches, some of which, he said, felt like the top of his head would blow off, and also memory loss. But what really struck Westbrook was Webster's demeanor. He was "like a five-year-old child who was amazed by the whole situation," Westbrook said. Webster tried to be helpful, but Westbrook struggled unsuccessfully to obtain even the most cursory medical history.

"I mean, he was very pleasant, very charming, but didn't have the drive and direction and decision-making ability," Westbrook said later. "And this is what gets destroyed in this process of repetitive brain injury. He was pretty much at sea in an open boat unless somebody directed him."

Westbrook thought it was an "easy case to decide." He wrote to the disability board: "With the history of multiple head injuries that all football players have and the history that the patient has predominately problems with what appears to be frontal lobe function, I think we can be pretty comfortable that this is related to injury."

"I don't think it's rocket science to say that there's chronic injury from head injury in football," Westbrook said. "I mean, we've all talked about it."

It would be years before it was known publicly what Edward Westbrook had concluded about Mike Webster, a period in which the concussion issue would sweep over the NFL like a giant wave and the question of what the league knew about the connection between football and brain damage—and when it knew it—would potentially be worth millions, if not billions, of dollars.

On October 28, 1999, on Westbrook's recommendation, the retirement board granted Webster "Total and Permanent" disability benefits on the basis of his injuries. A few months later, Fitzsimmons received a letter from Sarah E. Gaunt, the plan's director, explaining the decision: "The Retirement Board determined that Mr. Webster's disability arose while he was an Active Player." The medical reports, including one from the NFL's handpicked neurologist, "indicate that his disability is the result of head injuries suffered as a football player with the Pittsburgh Steelers and Kansas City Chiefs." The league's own disability

committee—chaired by a representative of the NFL commissioner and managed in part by the NFL owners, who elected that commissioner—had determined that professional football had caused Mike Webster's brain damage.

A decade later, as thousands of former players were suing the NFL for fraud, Fitzsimmons, who by then had nothing to do with the lawsuit, would describe that 1999 letter as "the proverbial smoking gun."

The decision was a hollow victory for Webster. The league didn't dispute that pro football had caused his brain damage, but the retirement board disagreed on when he became so disabled that he couldn't hold a job. All five doctors—Westbrook included—concluded that that happened immediately after Webster's career ended. The board determined that it was several years later, even though Webster's only full-time employment was his truncated season with the Chiefs in which he lived in a storage closet. Financially, the retirement board had made a hairsplitting—but life-changing—distinction. It was the difference between \$42,000 a year and hundreds of thousands.

Webster, of course, was apoplectic, and so was Fitzsimmons. The attorney whipped off letter after letter to the board in "an attempt to correct an obvious mistake." He recruited more doctors. He filed more forms. But no change was forthcoming. "Needless to say, I am disappointed and also frustrated," Fitzsimmons wrote. "I have now written to you . . . on 38 separate occasions. I have submitted the reports of at least ten independent doctors. Mike has filed three affidavits and we have obtained all of the available records you have requested."

Vodvarka, who continued to bear witness to Webster's decline as his personal physician, sat down and wrote Fitzsimmons a letter to try to make sense of it all. For much of his life, Vodvarka had worshiped Mike Webster, the Pittsburgh Steelers, and the National Football League. He couldn't get over the injustice, how the NFL had honored Webster by putting him in the Hall of Fame, how Webster was frequently named to the all-time teams that experts put together. Yet the league had abandoned him. "I am and could only be appalled," Vodvarka wrote Fitzsimmons. "We are dealing with a unique situation where a human being has lost his well-deserved dignity, respected reputation and most importantly

his family. The Pittsburgh Steelers and the National Football League have turned their backs, and have done nothing but try to destroy one of their most prolific players. I can only imagine what misery some of the National Football League's lesser players must suffer. Are they [the NFL] afraid to set a precedent? Do they expect the common people/taxpayer's to fund their casualties while paying to watch them occur?"

Fitzsimmons concluded he had no alternative except to sue the Bert Bell/Pete Rozelle NFL Player Retirement Plan. Thus began an entirely new battle, one that Webster would not live to see concluded.

His life was now in free fall. As soon as the disability checks started rolling in, the IRS garnished most of the payments; after taxes and the levy, he was getting \$641.67 a month. His ability to remember people and places was fading rapidly.

One night he and Colin took a drive to the local convenience store, just down the block from their apartment. They had made the trip dozens of times. Suddenly Webster made a wrong turn.

"What are you doing, Dad?" Colin asked. "The convenience store is that way."

"What are you talking about?" said Webster.

Colin tried again, but Webster started arguing. For 10 minutes they went back and forth, with Colin trying to convince his father that he was mistaken.

"I think you're crazy; I don't know what you're telling me, but all right, let's look," Webster said.

When Webster came upon the store, he was shaken.

"That was the scariest look I've ever seen on his face," Colin said. "It was like, 'Oh, my God, I just lost how to brush my teeth or tie my shoes.' The confusion and horror that was in his eyes, it was like, 'Oh, man!' I think that was really the worst for him, that he knew he was losing it."

One night Colin went to get a snack in the kitchen only to discover his father standing in front of the oven, the door open, his pants down, pissing into it.

"What are you doing, Dad?" Colin asked.

"Oh, Jesus, I thought I was going in a urinal," Webster said.

Eventually, two years out of high school, with no money and no career prospects, Colin decided to join the Marines. When he left, his

younger brother, Garrett, not yet 16, came down from Wisconsin to assume the role of son/caretaker/roommate. In Garrett's case, it was more roommate and caretaker than son. If Colin and his father had been like bachelor pals, Garrett and Webster were more like high school buddies. Garrett was huge, nearly 6-8, bigger than his dad. He played football even though his heart wasn't in it, saddled by the burden of being the son of a Hall of Fame center.

But Garrett, like Colin, loved hanging out with his dad. They browsed around Kmart at two in the morning, went to WWE wrestling matches, watched many of the same movies over and over: *The Princess Bride*, *Tombstone*, *Goodfellas*, *Happy Gilmore*, and, of course, any John Wayne flick. He and Garrett were *Star Wars* nerds, so they made sure they were there when *Episode II—Attack of the Clones* opened in spring 2002. Near the end of the movie, when Yoda strikes a pose with his light saber, ready to fight for the first time, Webster leaped out of his seat, screaming, "Yeah, yeah!"

But where once Team Webster could expect maybe 15 or 20 good days every month, he was down to perhaps 3 to 5. Sunny said Mike often sniffed ammonia late at night to stave off sleep, fearing he wouldn't wake up. "I don't want to fall asleep, little buddy," Webster would say. Webster's demise was reflected in his incoherent letters.

One read:

What is NOW what every one Family Kids Poor mother wives all more trouble Terrible situation Every one poverty worse & worse use more more our own Property Saving Every Penny still not enough

From a Kinko's in Madison on March 15, 2002, Webster faxed a nine-page letter to the Brain Injury Association of America. It was written in the third person in Webster's hand. One passage read:

To Levery all but a pathetic \$800 from all Mike's monthly assets He has Levied Then about \$14,000 per month and hHas Virtually Causes The Collapse of all the Good and Beneficial Polciies That had Mike making His own Way, meeting the obligations and

Honroing the Dependents Needs and also Paying out on Thos obligations Which he has been Determoin and resolute to Fullfill.

One night, Bob Stage, the former Steelers pilot, ran into Webster at a convenience store in Moon Township. The two men had once been close. Stage had attended Pro Bowls in Honolulu with Webster. The two men had gotten their families together, had prayed together and shared their faith. But now Webster had cut himself off—from old teammates, old friends, nearly everyone.

Stage walked up to say hello. Webster was gaunt and frail; he looked like he was 70.

"Mike, it's Robert!" said Stage, using the faux French pronunciation the way Webster used to.

"You could see a little flicker of recognition," said Stage, "and then it was like a light going out in his eyes."

Stage was destroyed. He went home and wept.

Three months later, around 11:30 P.M., Garrett called Sunny from the Walmart parking lot at Robinson Township. He said his father was having chest pains and trouble breathing. Sunny joined them and called Charles Kelly, the Wheeling doctor who had become Mike's good friend. By then, Webster's lips were turning blue. Kelly told Sunny to give Mike aspirin "in case he's having a heart attack" and drive him to the emergency room. Garrett went into the store and came back with Tylenol. His dad cursed him out. "Are you trying to kill me?" Webster said. "That's not the right stuff."

Garrett went back to the store and fetched some aspirin, which Mike gulped down. His condition wasn't improving. Sunny drove him to the emergency room at Heritage Valley Sewickley Hospital.

"I got Hall of Famer Mike Webster in my car; he's not feeling well," Sunny told the nurse. "Can you please help him?"

Webster was talkative and upbeat. He asked Sunny to take Garrett to school in the morning. As a nurse went to insert a catheter, he joked: "This is the first time a woman has touched me like that in ten years." The nurse injected him with morphine, and Sunny and Garrett could hear him saying behind the curtain: "Oh, yeah, baby, that's the good stuff."

They thought everything would be fine. And then suddenly it wasn't.

Tests revealed two fully blocked arteries and two that were partially blocked. Webster's heart was failing. He was transferred to Allegheny General in an ambulance. Webster was still optimistic and reassuring. When he saw Sunny, he reminded him of their plan to buy a pair of motorcycles someday.

"Don't worry," Webster told him. "When I get better, we're going to get those Harleys. We'll go out and make some money on some signings and do some different things."

But not long after the surgery, Garrett and Sunny were told they should call the rest of the family. There was too much blockage. Webster's body was shutting down.

Garrett and Sunny were stunned. Like everyone who had known him or watched him, they believed to the end that Iron Mike was indestructible. But he wasn't. In the early morning hours of September 24, 2002, Mike Webster was pronounced dead. He was 50. Sunny, the memorabilia collector, recalled being struck by the time of death: 12:52 A.M.

Bradshaw wore 12, Webster 52.

The Steelers paid for the funeral: \$5,000. Two hundred people attended, including a Who's Who of Steelers greats: Bradshaw, Swann, Harris, Blount, Noll. And the owner, Dan Rooney. Sunny had called Joe Gordon to ask the team for help; he had never really understood Webster's hatred of the Steelers. Colin was at Camp Lejeune, about to be deployed to Iraq, when he got the terrible news that his father was dying. At the funeral, he watched with disgust as Garrett greeted Rooney and the other Steelers. At one point, two of Rooney's assistants approached Colin to ask if he would come over to see the owner and receive his condolences. "Fuck you!" Colin shouted at Rooney. "My dad loathed you till the day he died. You have no business here."

Pam found herself looking around at all of Webster's ex-teammates and their wives. She wondered: Why aren't you all having to deal with this? Why just Mike? What did we all do to deserve this? Why are your husbands all fine?

Noll's wife, Marianne, came up to offer her sympathies.

"I didn't know Mike was sick; he didn't appear sick," she told Pam.

"Mike didn't appear sick because his injuries were inside his helmet," Pam said.

A few days later, the phone rang at Bob Fitzsimmons's office. The caller introduced himself as a pathologist with the Allegheny County coroner. Fitzsimmons could hardly understand him. The caller had a thick accent, and Fitzsimmons was tired and grief-stricken. He had lost a client who had become his friend. Fitzsimmons had grown to love Webster, and Mike's death had only made him more committed to confronting the NFL, to trying to recover what Mike was owed on behalf of his family.

Fitzsimmons wasn't totally sure he understood what the doctor wanted. He asked him to repeat himself, and the pathologist explained that he had read about Webster's problems before his death.

Then he repeated his odd request: Could he please study Mike Webster's brain?

6

THE VANILLA GUY

Leigh Steinberg's Marriott brain seminars were causing a cultural shift in the NFL. Steinberg knew that the tradition of players laughing about their head injuries or hiding them from trainers and doctors would never be fully eradicated; expecting otherwise was "somewhat akin to asking a drunk driver whether they're drunk," he thought. But the culture was definitely changing. Exhibit A was Steinberg's biggest client.

"The flippancy went away in that time period," said Steve Young.

Steve Young was not like most football players, and it went well beyond his use of words like *flippancy*. He was the great-great-great-grandson of Brigham Young, patriarch of the Mormon Church and founder of the university where Young played college football. Young was born in Salt Lake City but raised in Greenwich, Connecticut, after his father, a corporate lawyer and former BYU fullback, got a job in New York City. He was a National Merit Scholar and a great high school quarterback with a suspect throwing arm. Young decided to attend BYU, at the time a quarterback factory, even though he had no guarantee he'd get to play quarterback there.

Young took a long and circuitous path to NFL immortality. He started out eighth on the depth chart at BYU and spent much of his time there in the shadow of Jim McMahon before emerging as a star his senior season. Instead of going to the NFL, he signed a \$40 million

contract with the Los Angeles Express of the short-lived United States Football League, a decision he immediately regretted. Within a year, Steinberg had wrangled Young out of his contract. Young landed in 1985 with the lowly Tampa Bay Buccaneers, where his record as a starter was 3–19. Tampa Bay then traded him to the 49ers to make room for Vinny Testaverde. In San Francisco, Young became embroiled in the mother of all quarterback controversies, a rivalry with Joe Montana that lasted six years.

Young was almost 32 when the Niners finally traded Montana to Kansas City. Still, he remained in the legend's shadow, respected by his teammates but viewed as a curious case: cerebral, proper (the Brett Favre part in *There's Something About Mary* was originally written for Young, but he turned it down because he felt the humor was inappropriate), the kind of quarterback who picked up his law degree in the off-season and might someday run for president or Congress. That changed one afternoon when head coach George Seifert pulled Young in the third quarter with the Niners losing badly to the Philadelphia Eagles. Young went nuts—confronting the stoic coach on the sideline, unleashing a stream of un-Mormonlike expletives in front of his stunned teammates and a TV audience. To himself, Young was merely frustrated: He felt Seifert had unfairly singled him out. But his teammates were energized. Some believed that Young threw off the yoke of Montana's legacy that day and became the true Niners QB. "When Steve Young told Seifert to fuck off, he became a leader," said Gary Plummer, who was on the sideline that day. "It was literally at that point that guys on the team started embracing him. That tough-guy thing, that mentality that we all started learning at 8 years old, Steve really didn't see that as a beneficial character trait of a quarterback in the NFL until he was 32 years old."

By the time Young was 37, he was regarded as one of the toughest quarterbacks ever to play the game. He once scrambled nine yards after his helmet was knocked off—in a preseason game. He also was one of the league's most battered quarterbacks. As he grew older and the 49ers dynasty was fading, he was a half step slower, and defenses seemed to land shots more cleanly. Young had two concussions in 1996, then another on the fifth play of the 1997 season when Tampa Bay's Warren Sapp kicked him in the head. Young was so averse to coming out

of games that he sometimes hid behind offensive linemen to avoid his coaches. When Sapp drilled him, he managed to talk coach Steve Mariucci, Seifert's successor, into putting him back in. But it had reached the point where San Franciscans worried about Young's long-term health; people openly feared that the next hit would be his last. In 1999, during a win over New Orleans, Young was hit 21 times—"his impression of a pinata," one writer called it—with the Saints swarming over him, including a helmet-to-helmet shot that briefly left him inert. His own linemen feared for his safety. "It's basically got to stop," said guard Derrick Deese. "We were way over in volume of hits that he was taking."

The next week, the Niners traveled to Arizona. Young's fiancée, a former model named Barbara Graham, had invited her family to the game. Near the end of the first half, Cardinals cornerback Aeneas Williams blitzed from the right—Young's blind side. Williams, untouched, blasted Young, who went down so fast and so hard that it was difficult to tell what had happened—even on film. In fact, Young had been turned into a human pinball: On his way down, the back of his head hit tackle Dave Fiore's knee and then the hard turf. Plummer, by now a broadcaster, watched the play from the press box. "I was easily 300 feet away, and you could hear not only the helmet-to-helmet contact, you could hear his helmet hit the back of the *ground*. It was brutal." Whether Young was unconscious would become "a personal debate between my wife and me," he said. "I honestly don't remember whether I was knocked out or whether I just laid there." In any event, he wasn't moving. After several tense moments, Young rose and made it to the sideline.

At halftime Young told Mariucci: "I know you're not going to believe me, but I feel pretty good."

In an earlier time, perhaps, Young would have gone back in. But not now. The mood of the league and his own case history were working against him. Bay Area newspapers had begun printing time lines of Young's concussions dating all the way back to college, including one at BYU in which he was assisted off the field and then returned to lead a game-winning drive against Utah State. Now he was the quarterback who cried wolf. "We went in the locker room, which is a long walk from the old Tempe stadium, and I remember being asked, 'How you feeling?'" Young said. "I felt fine. But that's the first time I'd ever felt, 'You

don't believe me.' That's where the injury for me became different than other injuries. This was the first time I felt not completely trusted."

Young had been planning to stay in Arizona with his fiancée and her family. That was now out of the question. Mariucci and the medical staff ordered him back to San Francisco for tests. The 49ers first indicated that Young might miss only a week. Then a week became two. By the third week, Young's head had become part of the national sports conversation, with some commentators imploring him to retire. Greg Garber, who had done the story for ESPN after Al Toon's and Merrill Hoge's premature retirements, wrote a piece for the *Hartford Courant* under the headline "Young Should Quit While He Still Can." "The emperor is wearing no clothes, but no one will tell him he is naked," Garber wrote. Mariucci didn't dispel the speculation that Young might have to retire. When the 49ers' coach spoke of his quarterback now, it was in the mournful tones reserved for someone with a terminal illness. "I keep thinking and hoping he's going to be back eventually," Mariucci said. "But we're being realistic. This is lasting longer than we all thought."

Young was seeing a Stanford neurosurgeon named Gary Steinberg (no relation to Leigh). Young liked and admired him, but he felt the doctor was in an impossible situation, an "innate conflict" in which as an independent physician he was being asked to either bench the most beloved athlete in the Bay Area or risk, what, killing him? "I was feeling a little bit trapped," said Young. "It was just a red-hot situation, a tender situation." Young couldn't go to the store without getting advice. Elderly women would clutch his face and tell him: "*Please* be careful." "I promise. I will," he'd respond. For his part, Gary Steinberg said it was still too dangerous for Young to play. "The reason he hasn't been cleared to play up until now is that it's my opinion and the opinion of the 49ers that it's in the best interest of Steve Young to allow his brain to recover," he said during the third week of the crisis.

The 49ers were also conflicted. Mariucci was just six years older than Young, and the two men were like brothers. Young was so close with 49ers doctor Jim Klint ("a dear friend"), he later spoke at Klint's funeral. The conversations between Young and Mariucci began to take on a Shakespearean character. Each day, Young would beg Mariucci to let him back on the field. Each day, Mariucci refused. The discussions

took place anywhere Young could corner Mariucci: in the coach's office, on team buses, as Young stood idle on the sideline. Then, of course, there was Leigh Steinberg, who had turned concussions into a national health issue. The decision about whether Young would play had moved beyond the calculus of professional football. The main decision makers—the coach, the doctor, the agent—were like extended family members mounting an intervention to save Young from himself. “They kind of became the Italian grandmother, you know what I mean?” said Young. “The Jewish grandmother. The Mormon grandma. As I melt it down and think about it, those opinions are the ones that carried the day. Not the opinions on the street or even the intense scrutiny of concussions at the time. What held me back from getting back on the field? It was trying to convince people who truly loved me.”

“Mooch, you’ve lost all perspective,” Young told Mariucci. “You’re too close to this. You’ve got to be practical. This can’t be emotional.”

“I’m not emotional,” said Mariucci.

But of course he was. At times, the coach was in tears.

As the season wore on, it became clear that at least from the 49ers’ perspective, Young was done. The team, with Jeff Garcia at quarterback, was on its way to a 4–12 season, including at one point eight straight losses. “I could have run sprints and recited *War and Peace* and they would have said, ‘You’re out,’” said Young.

That off-season, the question of Young’s retirement hung over San Francisco like the summer fog. To Young, it became clear that of the many hurdles he faced, one was the most significant: No one in the Bay Area would let him go back on the field—not Steinberg (the neurosurgeon), not Mariucci, not Klint, not Bill Walsh, then the team’s vice president and general manager. Walsh was a big fight fan, and he publicly expressed his fears that Young could end up punch-drunk.

Young had one prominent ally: Mike Shanahan, the head coach of the Denver Broncos. Shanahan had been Seifert’s offensive coordinator during the transition from Montana to Young. His quarterback in Denver, John Elway, had just retired, and no one was more prepared to succeed a legend than Young. Young was faced with a brutal decision: play in Denver, rejecting the advice of pretty much everyone who loved him, or retire.

One of his more interesting advisers during this period was Plummer. Two years earlier, Plummer had retired and taken a job as a 49ers broadcaster. The transition was chastening. Shortly after he left, Plummer was walking the sidelines and found that he had a whole new perspective on pro football. “I remember seeing the violence and laughing to myself, saying, ‘I can’t flipping believe I did this.’” He was no longer the same Plummer who had stood in the back of a Marriott conference room heckling a neuroscientist. On the contrary, he was embarrassed. “It’s still remarkable to think how uneducated I was,” he said. “I mean, I went to Cal; I didn’t go on a scholarship, I got in because of my grades. I thought I was a pretty smart guy. I mean, now I look back at what a fucking moron I was to be mocking some of the most brilliant minds in the country on their specialty. I’d love to go back and say, ‘I’m sorry, I was a moron.’ But that was the attitude at the time.”

Plummer, like almost everyone, urged Young to get out. “This isn’t about your teammates anymore, this is about your life,” he implored him. “This is about having kids and being able to play with them in your backyard and not wanting you to be a mush mouth.”

On June 12, 2000, Young announced his retirement at the 49ers headquarters in Santa Clara—grudgingly and defiantly. “For the record, I know I can still play,” he said. That was undoubtedly true. He said he had been cleared. That was partially true. Walsh said: “The San Francisco 49ers, we considered the risk factor really to be too much for us to overcome.” Young was now married, and he and Barb were expecting their first child. “The fire still burns,” Young said, “but the stakes were too high.”

Thirteen years later, Young sat behind a desk at a nondescript office complex in Palo Alto, where he runs his charitable foundation, Forever Young; manages a hedge fund; and juggles car pool assignments. It was the first time he had talked extensively about the issue that now tormented the league. Young was not entirely comfortable with his association with the NFL’s concussion crisis. “I’ve danced away from concussions because I don’t think it was that vital to the big picture for my career,” he said. “But the truth is you’re coming to me because that’s a practical reality: the perception that part of my career is concussions.”

Young drew a distinction between himself and some of the horror